

Technical Specification Group Services and System Aspects  
Meeting #26, Athens, Greece  
13-16 December 2004

**TSGS#26(04)0838**

**Source: TSG-SA WG4**

**Title: CRs TS 26.140 on MMS (Release 6)**

**Document for: Approval**

**Agenda Item: 7.4.3**

The following CRs, agreed at the TSG-SA WG4 meeting #33, are presented to TSG SA #26 for approval.

Spec	CR	Rev	Phase	Subject	Cat	Vers	WG	Meeting	S4 doc
26.140	009	1	Rel-6	Support for EXIF in MMS	B	6.0.0	S4	TSG-SA WG4#33	S4-040852
26.140	010		Rel-6	Adoption of SVG Tiny 1.2 for MMS	B	6.0.0	S4	TSG-SA WG4#33	S4-040788

## CHANGE REQUEST

⌘ **26.140 CR 009** ⌘ rev **1** ⌘ Current version: **6.0.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

**Proposed change affects:** | UICC apps  ME  Radio Access Network  Core Network

<b>Title:</b>	<span>⌘</span> Support for EXIF in MMS		
<b>Source:</b>	<span>⌘</span> TSG-SA WG4		
<b>Work item code:</b>	<span>⌘</span> MMS6-Codec	<b>Date:</b>	<span>⌘</span> 14/12/2004
<b>Category:</b>	<span>⌘</span> <b>B</b>	<b>Release:</b>	<span>⌘</span> Rel-6
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

<b>Reason for change:</b>	<span>⌘</span> <a href="#">EXIF is widely used in digital photography. As MMS has today imaging messaging functionalities, it is important that MMS is aligned with this technology. Megapixel images are also carried by MMS messages. EXIF is well suited for presenting and printing megapixel images in an optimized manner.</a>
<b>Summary of change:</b>	<span>⌘</span> Support for EXIF as file format for JPEG is added.
<b>Consequences if not approved:</b>	<span>⌘</span> <a href="#">MMS would be missing some recent enhancements in digital photography.</a>

<b>Clauses affected:</b>	<span>⌘</span> 2, 3.2, 4.5						
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Other core specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<span>⌘</span>	
Y	N						
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	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Test specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<span>⌘</span>	
Y	N						
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Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
<b>Other comments:</b>	<span>⌘</span>						

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- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

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## 2 References

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- [1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] The Unicode Consortium: "The Unicode Standard", Version 2.0, Addison-Wesley Developers Press, 1996.URL: <http://www.unicode.org/>.
- [3] ANSI X3.4, 1986: "Information Systems; Coded Character Set 7 Bit; American National Standard Code for Information Interchange".
- [4] ISO/IEC 8859-1:1998: "Information technology; 8-bit single-byte coded graphic character sets; Part 1: Latin alphabet No. 1".
- [5] IETF; RFC 2279: "UTF-8, A Transformation format of ISO 10646", URL: <http://www.ietf.org/rfc/rfc2279.txt>.
- [6] 3GPP TS 24.011: "Point-to-Point (PP) Short Message Service (SMS) support on mobile radio interface".
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- [10] ITU-T Recommendation H.263 (02/98): "Video coding for low bit rate communication".
- [11] ITU-T Recommendation H.263 ñ Annex X (03/04): "Annex X: Profiles and levels definition".
- [12] ISO/IEC 14496-2 (2004): "Information technology - Coding of audio-visual objects - Part 2: Visual".
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- [14] 3GPP TS 26.234: "End-to-end transparent streaming Service; Protocols and codecs".
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- [17] IETF RFC 2083: "PNG (Portable Networks Graphics) Specification version 1.0 ", T. Boutell, et. al., March 1997.
- [18] ITU-T Recommendation H.263 (1998): "Video coding for low bit rate communication - Annex X, Profiles and Levels Definition".
- [19] ISO/IEC 14496-3:2001, "Information technology -- Coding of audio-visual objects -- Part 3: Audio".
- [20] W3C Recommendation: "Scalable Vector Graphics (SVG) 1.1 Specification", <http://www.w3.org/TR/2003/REC-SVG11-20030114/>, January 2003.

- [21] W3C Recommendation: "Mobile SVG Profiles: SVG Tiny and SVG Basic", <http://www.w3.org/TR/2003/REC-SVGMobile-20030114/>, January 2003.
- [22] 3GPP 22.140: "Service Aspects; Stage 1; Multimedia Messaging Service".
- [23] 3GPP 23.140: "Multimedia Messaging Service (MMS); Functional Description; Stage 2".
- [24] W3C Recommendation: "Synchronized Multimedia Integration Language (SMIL 2.0)", <http://www.w3.org/TR/2001/REC-smil20-20010807/>, August 2001.
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- [26] 3GPP TS 26.071: "Mandatory Speech Codec speech processing functions; AMR Speech Codec; General description".
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- [28] Scalable Polyphony MIDI Specification Version 1.0, RP-34, MIDI Manufacturers Association, Los Angeles, CA, February 2002.
- [29] Scalable Polyphony MIDI Device 5-to-24 Note Profile for 3GPP, RP-35, MIDI Manufacturers Association, Los Angeles, CA, February 2002.
- [30] WAP Forum Specification: "XHTML Mobile Profile", <http://www1.wapforum.org/tech/terms.asp?doc=WAP-277-XHTMLMP-20011029-a.pdf>, October 2001.
- [31] "Standard MIDI Files 1.0", RP-001, in "The Complete MIDI 1.0 Detailed Specification, Document Version 96.1 " The MIDI Manufacturers Association, Los Angeles, CA, USA, February 1996.
- [32] IETF RFC 3267: " RTP payload format and file storage format for the Adaptive Multi-Rate (AMR) Adaptive Multi-Rate Wideband (AMR-WB) audio codecs ", March 2002.
- [33] 3GPP TS 26.244: "Transparent end-to-end packet switched streaming service (PSS); 3GPP file format (3GP)"
- [34] 3GPP TS 26.246: "Transparent end-to-end packet switched streaming service (PSS); 3GPP SMIL Language Profile".
- [35] 3GPP TS 26.245: "Transparent end-to-end packet switched streaming service (PSS); Timed text format"
- [36] IETF RFC 1952 "GZIP file format specification version 4.3", Deutsch P, May 1996.
- [37] (void)
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- [52] ITU-T Recommendation H.264 (2003): "Advanced video coding for generic audiovisual services"  
ISO/IEC 14496-10:2003: "Information technology ñ Coding of audio-visual objects ñ Part 10: Advanced Video Coding".
- [53] [ì Exchangeable image file format for digital still cameras: EXIF 2.2î, Specification by the Japan Electronics and Information Technology Industries Association \(JEITA\), April 2002, URL: http://www.exif.org/](http://www.exif.org/)

## 3 Definitions and abbreviations

### 3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

**continuous media:** media with an inherent notion of time, in the present document speech, audio and video

**discrete media:** media that itself does not contain an element of time, in the present document all media not defined as continuous media

**scene description:** description of the spatial layout and temporal behaviour of a presentation, it can also contain hyperlinks

### 3.2 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply:

3GP	3GPP file format
AAC	Advanced Audio Coding
AVC	Advanced Video Coding
CC/PP	Composite Capability/Preference Profiles
DLS	Downloadable Sounds
Enhanced aacPlus	MPEG-4 High Efficiency AAC plus MPEG-4 Parametric Stereo
<a href="http://www.exif.org/">EXIF</a>	<a href="http://www.exif.org/">Exchangeable image file format</a>
GIF	Graphics Interchange Format
H.263	ITU-T video codec
ITU-T	International Telecommunications Union - Telecommunications
JFIF	JPEG File Interchange Format
JPEG	Joint Picture Expert Group
MIDI	Musical Instrument Digital Interface
MIME	Multipurpose Internet Mail Extensions
MM	Multimedia Message
MMS	Multimedia Messaging Service
MPEG	Motion Picture Expert Group
MP4	MPEG-4 file format

PSS	Packet-switched Streaming Service
SBR	Spectral Band Replication
SP-MIDI	Scalable Polyphony MIDI
SVG	Scalable Vector Graphics
UTF-8	Unicode Transformation Format (the 8-bit form)
XMF	Extensible Music Format

\*\*\*\*\* NEXT AMENDMENT \*\*\*\*\*

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## 4 Media formats

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### 4.5 Still Image

If still images are supported, ISO/IEC JPEG [8] together with JFIF [9] shall be supported. The support for ISO/IEC JPEG only apply to the following two modes:

- mandatory: baseline DCT, non-differential, Huffman coding, as defined in table B.1, symbol 'SOF0' in [8];
- optional: progressive DCT, non-differential, Huffman coding, as defined in table B.1, symbol 'SOF2' [8].

[For JPEG baseline DCT, EXIF compressed image file format should also be supported, as defined in \[xx53\]. In that case there is no requirement for the MMS client to interpret or present the EXIF parameters recorded in the file.](#)

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CR-Form-v7

## CHANGE REQUEST

⌘ **26.140 CR 010** ⌘ rev **-** ⌘ Current version: **6.0.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects:  UICC apps ⌘  ME  Radio Access Network  Core Network

<b>Title:</b>	<span>⌘</span> Adoption of SVG Tiny 1.2 for MMS		
<b>Source:</b>	<span>⌘</span> TSG-SA WG4		
<b>Work item code:</b>	<span>⌘</span> MMS6-Codec	<b>Date:</b>	<span>⌘</span> 14/12/2004
<b>Category:</b>	<span>⌘</span> <b>B</b>	<b>Release:</b>	<span>⌘</span> Rel-6
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	<b>F</b> (correction)		2 (GSM Phase 2)
	<b>A</b> (corresponds to a correction in an earlier release)		R96 (Release 1996)
	<b>B</b> (addition of feature),		R97 (Release 1997)
	<b>C</b> (functional modification of feature)		R98 (Release 1998)
	<b>D</b> (editorial modification)		R99 (Release 1999)
	Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

<b>Reason for change:</b>	<span>⌘</span> Addition of Scalable Vector Graphics (SVG) Tiny 1.2 to MMS		
<b>Summary of change:</b>	<span>⌘</span> SVG Tiny 1.2 added as a supported format together with a reference to content creation guidelines provided in TS 26.234. ECMAScript added as a scripting language.		
<b>Consequences if not approved:</b>	<span>⌘</span> MMS in Release 6 will not be capable of SVG Tiny 1.2.		

<b>Clauses affected:</b>	<span>⌘</span> 2, 4.8										
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">X</td> <td style="text-align: center;"></td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;">X</td> </tr> </table>	Y	N	X			X		X	Other core specifications	<span>⌘</span> TS 26.234 (see below)
Y	N										
X											
	X										
	X										
		Test specifications									
		O&M Specifications									
<b>Other comments:</b>	<span>⌘</span> SVG Tiny 1.2 together with content creation guidelines are added to PSS in CR 26.234 079.										

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- [20] ~~W3C Recommendation: "Scalable Vector Graphics (SVG) 1.1 Specification",~~  
~~<http://www.w3.org/TR/2003/REC-SVG11-20030114/>, January 2003.~~ W3C Last Call Working Draft:  
"Scalable Vector Graphics (SVG) 1.2", <http://www.w3.org/TR/2004/WD-SVG12-20041027/>, October 2004.
- [21] ~~W3C Recommendation: "Mobile SVG Profiles: SVG Tiny and SVG Basic",~~  
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Draft: "Mobile SVG Profile: SVG Tiny, Version 1.2", <http://www.w3.org/TR/2004/WD-SVGMobile12-20040813/>, August 2004.
- [22] 3GPP 22.140: "Service Aspects; Stage 1; Multimedia Messaging Service".
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- [53] ISO/IEC 14496-10/FDAM1: "AVC Fidelity Range Extensions".
- [54] [Standard ECMA-327: "ECMAScript 3<sup>rd</sup> Edition Compact Profile", June 2001.](#)

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## 4.8 Vector graphics

If 2D vector graphics is supported, ~~the Tiny profile of the Scalable Vector Graphics (SVG-Tiny) Tiny 1.2 [20][21] and ECMA Script [54]~~ shall be supported, ~~and the Basic profile of the Scalable Vector Graphics (SVG-Basic) may be supported [20][21].~~

NOTE 1: The compression format for SVG content is GZIP [35], in accordance with the SVG specification [20].

NOTE 2: Only media formats supported by MMS, as specified in clause 4 of this specification, shall be used. MMS clients do not support the Ogg Vorbis format.

NOTE 3: ~~Adoption of SVG Tiny 1.2 to Release 6 is still being considered (as a working assumption) to MMS. Decision will be made as a late Release 6 item during TSG SA Meeting #26.~~ Content creators of SVG Tiny 1.2 for MMS clients are strongly recommended to follow the content creation guidelines provided for PSS clients in Annex L of [14].

NOTE 4: If SVG Tiny 1.2 will not be published within a reasonable timeframe, the decision to adopt SVG Tiny 1.2 in favour of SVG Tiny 1.1 may be reconsidered.